

conduct by detachment of electrons from the atoms of sulphur.—G. Mouret: The prolongation of the fracture of Argentat (Corrèze) in the region of Dorat (Upper Vienne and Vienne).—L. Dussault: The Tam Dao and the region of the lower river Claire (Tonkin).—C. Gorceix: The formation of the "Gouf de Cap-Breton." A close study of the profile of this cavity shows that it cannot be regarded as an estuary or valley. The best explanation of the observed facts appears to be the assumption of a band of gypsum-salt formation; the gypsum and the salt have been dissolved by water and the associated clay washed out.—J. Fromaget: The geology of the environs of A Mi Tchëou (Eastern Yunnan).—M. Gignoux: The presence of the Tortonian at Valence (Spain).—E. Wertheimer: The entero-hepatic circulation of the bile acids. A description of an experiment confirming the views of Stadelmann on the passage of glycocholic acid in bile of the dog. The elimination of the bile acids takes place exclusively through the intermediary of the portal vein.—F. Maignon: Researches on the physiological and therapeutic properties of the diastases of the tissues. The existence of synthesising diastases. An account of experiments on the injection and ingestion of diastases extracted from various organs (thyroid, suprarenal capsules, ovary, pancreas, etc.). The action of these diastases is specific, in the sense that those extracted from the liver exert hepatic functions only, those from the thyroid affect the thyroid secretion, etc. These diastases have no action when administered to healthy subjects whose organs are working normally.—R. Jeannel: The geographical dispersion of *Silphidae Catopinae* during the Tertiary period.—R. Noël: The phenomena of condensation of fatty bodies on the surface of mitochondria.—R. Argaud: Some functions of the tumoral megacaryocyte and especially its vasoformative function.—A. Goris and A. Liot: New observations on the culture of the pyocyanic bacillus on definite artificial media. The amides could not be used for the culture of this bacillus; amino acids could be used, but growth did not take place so readily as with ammoniacal salts of dibasic acids.—L. Cavel: The method of purification by means of activated sludge and its application to the separative system.—J. Glover: Electrical auscultation of respiration at the commencement of tuberculosis. A new method of auscultation based on the use of amplifying micro-telephonic stethoscopes.—E. Sergent and A. Donatien: The stomox as a propagator of trypanosomiasis in dromedaries.

Official Publications Received.

Bulletin of the National Research Council, vol. 3, Part I, No. 16, December: Research Laboratories in Industrial Establishments of the United States. By Alfred D. Flinn. Revised and enlarged by Ruth Cobb. Pp. 135. (Washington: National Academy of Sciences.) 2 dollars.

Smithsonian Institution, United States National Museum. Bulletin 113: Life Histories of North American Gulls and Terns: Order Longipennes. By Arthur C. Bent. Pp. x+345+93 plates. Bulletin 114: A Revision of the King Snakes: Genus *Lampropeltis*. By Frank N. Blanchard. Pp. vi+260. (Washington: Government Printing Office.)

The Carnegie United Kingdom Trust. Eighth Annual Report (for the Year ending 31st December 1921) submitted by the Executive Committee to the Trustees on Friday, 3rd March 1922. Pp. ii+66. (Edinburgh.)

Department of Commerce. Technologic Papers of the Bureau of Standards. No. 204: Cutting Fluids. By Eugene C. Bingham. Pp. 35-76. (Washington: Bureau of Standards.) 15 cents.

Department of Commerce. Scientific Papers of the Bureau of Standards. No. 422: Studies in Color Sensitive Photographic Plates and Methods of Sensitizing by Bathing. By Francis M. Walters, Jr., and Raymond Davis. Pp. 353-375. 15 cents. No. 424: Mathematical Theory of Induced Voltage in the High-Tension Magnets. By Francis B. Silsbee. Pp. 407-470. 15 cents. No. 425: Characteristic Soft X-rays from Arcs in Gases and Vapours. By F. L. Mohler and Paul D. Foote. Pp. 471-496. 10 cents. No. 426: Thermal

Expansion of Nickel, Monel Metal, Stellite, Stainless Steel, and Aluminium. By Wilmer H. Souder and Peter Hidmert. Pp. 497-519. 10 cents. No. 427: Some Effects of the Distributed Capacity between Inductance Coils and the Ground. By Gregory Breit. Pp. 521-527. 5 cents. (Washington: Bureau of Standards.)

Ministry of Public Works, Egypt. Report on the Work of the Physical Department for the Year ending March 31, 1921. By Dr. H. E. Hurst. Pp. ii+22. (Cairo: Government Publications Office.) P.T. 5.

Ministry of Finance, Egypt. Survey of Egypt: Geological Survey. Palaeontological Series, No. 5: Catalogue des Invertébrés fossiles de l'Égypte représentés dans les Collections du Musée de Géologie au Caire. Par R. Fourtau. Terrains Crétacés—3^{me} Partie: Echinodermes (Supplément). Pp. viii+101+v+11 plates. (Cairo: Government Publications Office.) P.T. 50.

Synoptic Series of Objects in the United States National Museum Illustrating the History of Inventions. By Walter Hough. (No. 2404, From the Proceedings of the U.S. National Museum, Vol. 60, Art. 9.) Pp. 47+56 plates. (Washington: Government Printing Office.)

Fifty-ninth Annual Report of the Secretary of the State Board of Agriculture of the State of Michigan and Thirty-third Annual Report of the Experiment Station from July 1, 1919, to June 30, 1920. Pp. 700. (Lansing, Mich.)

Department of the Interior: United States Geological Survey. Bulletin 679: The Microscopic Determination of the Nonopaque Minerals. By Esper S. Larsen. Pp. 294. (Washington: Government Printing Office.)

Report of the Secretary of the Smithsonian Institution for the Year ending June 30, 1921. (Publication 2659.) Pp. 119. (Washington: Government Printing Office.)

University of Wisconsin Studies in Science. No. 1: The Fishes of Lake Valencia, Venezuela. By Prof. A. S. Pearse. Pp. 51. 50 cents. No. 2: Papers on Bacteriology and Allied Subjects. By Former Students of Harry L. Russell. Pp. 199. 1 dollar. No. 3: The Distribution and Food of the Fishes of Three Wisconsin Lakes in Summer. By Prof. A. S. Pearse. Pp. 61. 50 cents. (Madison: University of Wisconsin.)

Proceedings of the First Pan-Pacific Scientific Conference under the Auspices of the Pan-Pacific Union, Honolulu, Hawaii, August 2 to 20, 1920. Part 1. Pp. ix+308. Part 2. Pp. iii+309-636. Part 3. Pp. iii+637-950. (Bernice P. Bishop Museum Special Publication, No. 7, parts 1, 2, and 3.) (Honolulu: Honolulu Star-Bulletin, Ltd.)

Ministère de l'Agriculture. Direction générale des Eaux et Forêts. (2^{me} Partie.) Service de Grandes Forces Hydrauliques (Région du Sud-Ouest). Résultats obtenus pour le bassin de l'Adour, pendant les années 1917 et 1918. Tome VII, Fascicule B. Pp. 48+charts 2-65. Résultats obtenus pour le bassin de l'Adour. Tome Ibis, Fascicule A. Pp. iv+charts 2-67. (Paris: Ministère de l'Agriculture.)

Diary of Societies.

FRIDAY, MARCH 17.

ROYAL SOCIETY OF MEDICINE (Otolaryngology Section), at 5.
INSTITUTE OF TRANSPORT (at Royal Society of Arts), at 5.—F. Pick: The Operation of an Omnibus Company, with reference to Capacity and Cost under Given Conditions.
INSTITUTE OF MECHANICAL ENGINEERS, at 6.—P. C. Dewhurst: British and American Locomotive Design and Practice.
INSTITUTE OF ELECTRICAL ENGINEERS (London Students' Section), at 7.—C. C. H. Wade: The Electron Theory.
JUNIOR INSTITUTION OF ENGINEERS, at 8.—G. H. Ayres: Power Factor Improvement.
ROYAL SOCIETY OF MEDICINE (Electro-therapeutics Section), at 8.30.—Dr. M. Legge and others: Discussion on the Pathological Changes produced in Subjects rendered Unconscious by Electric Shock, and the Treatment.
ROYAL INSTITUTION OF GREAT BRITAIN, at 9.—Prof. A. P. Laurie: The Pigments and Mediums of the Old Masters.

SATURDAY, MARCH 18.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Sir Ernest Rutherford: Radioactivity (3).
PHYSIOLOGICAL SOCIETY (at University College).

MONDAY, MARCH 20.

INSTITUTE OF ELECTRICAL ENGINEERS (Informal Meeting), at 7.
INSTITUTE OF MECHANICAL ENGINEERS (Graduates' Section), at 7.—Capt. H. Whittaker: Hydro-electric Course at the University of Grenoble.
ROYAL INSTITUTE OF BRITISH ARCHITECTS, at 8.—H. D. Searles-Wood: The Building Timbers of the Empire.
ARISTOTELIAN SOCIETY (at University of London Club, 21 Gower Street, W.C.1), at 8.—Prof. R. F. A. Hoernlé: Some Byways of the Theory of Knowledge.
ROYAL SOCIETY OF ARTS, at 8.—L. G. Radcliffe: The Constituents of Essential Oils (Cantor Lectures) (1).
ROYAL GEOGRAPHICAL SOCIETY (at Æolian Hall), at 8.30.—H. Temperley: The Geography of the Treaty of Rapallo.

TUESDAY, MARCH 21.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Sir Arthur Keith: Anthropological Problems of the British Empire. Series I. Racial Problems in Asia and Australasia (5).
ROYAL COLLEGE OF PHYSICIANS OF LONDON, at 5.—Dr. A. Feiling: The Interpretation of Symptoms in Disease of the Central Nervous System (Goulstonian Lectures) (1).

ROYAL STATISTICAL SOCIETY, at 5.15.—J. Y. Hart: Sickness Data of Public Elementary School Teachers in London 1904-1919.
 MINERALOGICAL SOCIETY (at Geological Society), at 5.30.—Sir William Bragg: Recent X-ray work on the Crystal Structure of Organic Substances.
 ZOOLOGICAL SOCIETY OF LONDON, at 5.30.—G. Blaine: Notes on the Zebras and some Antelopes of Angola.—R. I. Pocock: The External Characters of some Hystriomorph Rodents.—H. R. Hogg: Some Spiders from South Annam.
 INSTITUTION OF CIVIL ENGINEERS, at 6.—W. Willox: All-Electric Automatic Power Signalling on the Metropolitan Railway.
 ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN, at 7.—S. Bridgen: Landscape from the Practical Side.
 RÖNTGEN SOCIETY (at Institution of Electrical Engineers), at 8.15.—Sir Oliver Lodge: Magnetism—and the Ether (Fifth Silvanus Thompson Memorial Lecture).

WEDNESDAY, MARCH 22.

GEOLOGICAL SOCIETY OF LONDON, at 5.30.—Sir Charles J. Holmes: Leonardo da Vinci as a Geologist.
 ROYAL SOCIETY OF ARTS, at 8.—Prof. A. P. Laurie: The late Mr. Holman Hunt's Experiments on the Permanency of Artists' Oil Colours.

THURSDAY, MARCH 23.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Dr. P. Chalmers Mitchell: The Cinema as a Zoological Method (2).
 ROYAL SOCIETY, at 4.30.—*Probable Papers*.—Sir Richard Glazebrook: The Specific Heats of Air, Steam, and Carbon Dioxide.—Lord Rayleigh: A Photographic Spectrum of the Aurora of May 13-15, 1921, and Laboratory Studies in connection with it.—F. A. Freeth: The System: $\text{Na}_2\text{CO}_3\text{--NaCl--H}_2\text{O}$.—M. A. Catalán: Series and other Regularities in the Spectrum of Manganese.—D. W. Dye: Calculation of a Primary Standard of Mutual Inductance of the Campbell Type and Comparison of it with the similar N.P.L. Standard.—P. E. Shaw and N. Davy: The Effect of Temperature on Gravitative Attraction.
 ROYAL COLLEGE OF PHYSICIANS OF LONDON, at 5.—Dr. A. Feiling: The Interpretation of Symptoms in Disease of the Central Nervous System (2).
 CHILD-STUDY SOCIETY (at Royal Sanitary Institute), at 6.—F. Whelen: The League at Work (League of Nations Union).
 CONCRETE INSTITUTE, at 7.30.—S. F. Staples: Floating Docks.

FRIDAY, MARCH 24.

ROYAL SOCIETY OF ARTS (Indian Section), at 4.30.—Prof. H. E. Armstrong: The Indigo Situation in India.
 PHYSICAL SOCIETY OF LONDON (at Imperial College of Science and Technology), at 5.
 INSTITUTION OF PRODUCTION ENGINEERS (at Institution of Mechanical Engineers), at 7.30.—E. Fairbrother: Inspection Methods.
 JUNIOR INSTITUTION OF ENGINEERS, at 8.
 ROYAL INSTITUTION OF GREAT BRITAIN, at 9.—Prof. F. G. Donnan: Auxiliary International Languages.

SATURDAY, MARCH 25.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Sir Ernest Rutherford: Radioactivity (4).

PUBLIC LECTURES.

(A number in brackets indicates the number of a lecture in a series.)

FRIDAY, MARCH 17.

METEOROLOGICAL OFFICE (South Kensington), at 3.—Sir Napier Shaw: The Structure of the Atmosphere and the Meteorology of the Globe (9).
 KING'S COLLEGE, at 5.—Prof. R. Robinson: Orientation and Conjugation in Organic Chemistry from the Standpoint of the Theories of Partial Valency and of Latent Polarity of Atoms (3).
 TAVISTOCK CLINIC FOR FUNCTIONAL NERVE CASES (at Mary Ward Settlement, Tavistock Place, W.C.1), at 5.30.—Dr. H. C. Miller: The New Psychology and its Bearing on Education (8).
 BIRKBECK COLLEGE, at 8.—F. Hodges: Trade Unionism. (Meeting arranged by the London Branch of the National Union of Scientific Workers.)

SATURDAY, MARCH 18.

THE POLYTECHNIC (Regent Street, W.1), at 10.30 A.M.—P. A. Best: The Romance of Commerce.
 HORNIMAN MUSEUM (Forest Hill), at 3.30.—H. N. Milligan: The Natural History of Elephants.

MONDAY, MARCH 20.

ROYAL SOCIETY OF MEDICINE, at 5.—Prof. H. Roger: Les fonctions du Poumon.

TUESDAY, MARCH 21.

KING'S COLLEGE, at 5.30.—F. H. Rolt: Accurate Measurements in Mechanical Engineering: The Use and Testing of Gauges (5).
 UNIVERSITY COLLEGE, at 5.30.—Col. W. M. St. G. Kirke: Imperial Defence as affected by the War (2).

WEDNESDAY, MARCH 22.

SCHOOL OF ORIENTAL STUDIES, at 12.—Miss Alice Werner: Bantu Mythology and Folklore (5).
 EAST LONDON COLLEGE, at 4.—Prof. F. E. Fritsch: Certain Aspects of Freshwater Algal Biology (6).
 SCHOOL OF ORIENTAL STUDIES, at 5.—M. de Z. Wickremasinghe: Tea and Rubber Industries in Ceylon.
 KING'S COLLEGE, at 5.15.—Prof. N. Bohr: The Quantum Theory of Radiation and the Constitution of the Atom (3).
 HORNIMAN MUSEUM (Forest Hill), at 6.—W. W. Skeat: The Living Past in Britain (9).
 UNIVERSITY COLLEGE, at 8.—The Current Work of the Biometric and Eugenics Laboratories (6). Dr. M. Greenwood: Occupational Mortality.

THURSDAY, MARCH 23.

ROYAL SOCIETY OF MEDICINE, at 5.—Prof. A. Chauffard: Syndrome Humoral de la Goutte.
 SCHOOL OF ORIENTAL STUDIES, at 5.—Dr. L. D. Barnett: The Hindu Culture of India (4).
 KING'S COLLEGE, at 5.30.—Dr. O. Faber: Reinforced Concrete (10).
 ROYAL INSTITUTE OF BRITISH ARCHITECTS, at 8.—H. E. Stilgoe: Water (1): Its Storage and Filtration (Chadwick Lecture).

FRIDAY, MARCH 24.

METEOROLOGICAL OFFICE, (South Kensington), at 3.—Sir Napier Shaw: The Structure of the Atmosphere and the Meteorology of the Globe (10).
 KING'S COLLEGE, at 5.30.—Dr. G. Cook: Some Recent Advances in our Knowledge of the Strength of Materials.

SATURDAY, MARCH 25.

HORNIMAN MUSEUM (Forest Hill), at 3.30.—Dr. E. Marion Delf: Science and the Food we eat.

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